



# HUSKY CRIME GUIDE

## Contextual Inquiry and Interface Sketches

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### I. Problem and solution overview

As members of the University of Washington community, we are informed of crimes in our neighborhood through e-mails and texts from the UWPD. This system, however, lacks 1) a way to view past criminal activities, 2) any features that engage or interact with the user, and 3) a method for actively preventing crime. The *Husky Crime Guide* will be a **centralized dashboard for informing UW students of reported crimes** in the U-District area and also an **application for monitoring student safety** for your mobile phone. This supplement to the UWPD's Notifications of Criminal Incidences will consist of an interactive map with color-coded pins pinpointing crime location and "severeness" of the crime. Students can filter these crimes by type, date, time, and location and details on a crime can be viewed by clicking on a pin. Additionally, students will be able to use the Husky Crime Guide to interact with the UWPD; users who choose to be monitored by this mobile application will have access to a panic button for immediately reporting an emergency to the police.

**The combination of the Husky Crime Guide's mobile map and monitoring system will allow college students to better protect themselves against crime.**

### II. Contextual inquiry participants

The main stakeholder in the development of the Husky Crime Guide is the **UW student population**. Any student who has received a UWPD Notification of Criminal Incidence, any student who has walked alone on campus or in the U-District, and any student who is interested in staying safe will be interested in this application. We therefore chose to perform contextual inquiries on a variety of college students, both men and women, who were of various ages and majors. We were able to speak with the following people:<sup>1</sup>

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<sup>1</sup> Ideally we would have also spoken to a UWPD Officer, Nightwalk employee, or someone who has direct contact with crimes in the U-District, but we were unable to get into contact with them.

- Male, Sophomore, Anthropology Major, On-campus resident
- Male, Senior, Marine Biology, On-campus resident
- Male, Senior, Civil Engineering, On-campus resident
- Male, Senior, Electrical Engineering, On-campus resident
- Male, Senior, Aerospace Engineering, Off-campus commuter
- Female, Senior, Civil Engineering, Off-campus commuter
- Female, Senior, Math, Off-campus commuter
- Female, Senior, Anthropology/ Public Health major, off-campus resident
- Female, Freshman, Undecided, on-campus resident
- Female, Freshman, Japanese, Business, on-campus resident
- Female, Freshman, Psychology, Business, on-campus resident
- Female, Senior, Design Major, on-campus resident
- Female, Senior, Informatics Major, on-campus resident
- Male, Senior, Informatics Major, off-campus resident
- Female, Senior, Accounting Major, off-campus

#### **A. Checking Notifications of Criminal Incidence**

We performed contextual inquiries of these students by asking them to complete the following jobs using their computers:

- Asked the student to find 1) the last UWPD alert in their inbox, 2) a UWPD alert from a month ago, and 3) a UWPD alert from more than a month ago.
  - As they look, asked them:
    - Do you remember receiving this alert?
    - Did you read this entire alert? If not, show us which parts you read.
    - Can you visualize the location of this crime?
    - Did you change your lifestyle after reading this notification?
    - Can find any other alert in your inbox that relates to this crime?
    - What is your general feeling toward receiving UW Crime Alerts? Do they make you feel more or less safe?
    - Ask students whether they've ever heard of Google Latitude? Explain what it is and ask them if they would use a service like that. Also ask if it would be enough to replace Husky Night Walk, or walking home with a friend.

This method of inquiry allowed us to evaluate how familiar students were with the current UWPD Notification system. Asking those questions as they navigated through their inboxes informed us of if students actually read these notifications. If the student did read them, this inquiry demonstrated how easy it was to extract key information from them, and if they had any positive/negative impact on their lives.

#### **B. Walking on Campus at Night**

In order to evaluate how safe students feel as they walk around campus at night, we performed inquiry on a female senior. We chose a student to accompany to her bus stop as she walked through the north end of the UW campus at 8pm. As we walked with this student, we asked them the following questions:

- Why did you choose to walk this route?
- Why aren't you using your cell phone?

- Do you usually walk this route alone?
- (If she walked in a poorly lit location or a high crime area) did your concern for your safety change?

We asked these questions to get a feeling of what the student thought about as she was walking, especially as the situation/bystanders/location changed. If she had any concerns about her safety on campus, we wanted to discover them during this inquiry.

### **C. Night Walk Ride Along**

In order to understand what current safety options are available to students we went on a ride along. We called the Night Walk hot-line and asked to follow a night walk officer. Night walk has a van that picks people up off campus and brings them back to campus. We chose to ride along with an officer in the van in order to see how students that are in dangerous areas use the service. We asked the officer the following questions:

- How many calls do you get a night?
- Do you keep track of dangerous or high crime areas?
- What are some reasons students use your service?

We asked these questions and we observed what the officer did. We spent much of the time listening to what the officer had to say about his job and safety on campus.

## **III. Contextual inquiry results**

### **A. Checking Notifications of Criminal Incidence: General Results**

All students could find the notification emails in their inbox, however most did this by searching for “UWPD” and sifting through the results. Most students we talked with were not storing or tracking these messages. Once they found the message, in general students only read the full message if the first few lines of the message sounded interesting. Some students said they ignore the messages if they are busy because they get so many skipping a few doesn’t seem to matter.

Some of the students we asked could not remember any location besides the nudity in red square. In fact, a lot of the students we talked to could *only* recount the “funny” (like nudity) incidents that happened and mentioned that they first heard about those incidents through word of mouth. The students that live in the U-Dist area said that they usually look at the address and have an easy time visualizing where the crime occurred. However, those who live off campus said that the street names do not provide sufficient detail for them to understand where the crime occurred and that they don’t care to look it up because they are not directly affected.

About half of the students said that the crimes did not affect where they went or the hours they stayed out. They did not seem to use the information to avoid dangerous areas. However, there was also a demographic of interviewees who said that they definitely try to stay out of an area where a crime had occurred.

In general, a lot of the responses could be categorized under two types of personas; those who are more cautious and take measures to increase their safety, and those who generally feel safe wherever they go and don’t rely on friends to travel at night.

### **A-1: Google Latitude**

In response to the question about Google Latitude, all of the students said that it would

be a useful tool that would help increase their feeling of safety. One of the students who feels fairly comfortable walking alone at night, said that she would use the service in addition to texting a friend that she is on her way home from an event, when she is traveling at night. However, none of the students who do not walk around campus or the U-dist area without some kind of assistance (whether friends or Husky Night Walk etc...) said that something like Google Latitude would be an adequate substitute for walking with an actual person.

### **A-2: Student Proposed Solution**

A major consensus of the students we talked with was the messages seem too old to be of much value. Getting a message about a crime that happened a week ago feels stale to students. Some students said crime alerts should be integrated into *twitter* and *facebook*, where witnesses to crimes can post criminal locations and other information. The goal of this suggestion was that if many students gave bits of information it could be combined to reveal the larger picture. For instance if the suspect is running up a certain street and students tweeted he just ran past me then there would be real time location tracking of the criminal and maybe someone else would get a better look at the criminal and be able to identify him. Although all students did not mention social media, most did say that more responsive alerts would make them more likely to read them and use the information to stay away from the crime zone.

### **A-3: Unique Results:**

- One student did filter notification messages in his e-mail. He definitely had an easier time finding these notifications, but was not more likely to read those e-mails. The rationale behind this is: if the student automatically places the messages in another folder, he can easily choose to never open those messages and ignore them entirely.
- Though most notifications were forgotten, most students read the incident involving a nude man running through red square, because it was interesting and funny to them. Therefore, if the first few lines of the notification did not hook them, they tended to ignore the messages.
- One student said that she usually only glances over crime notification emails and always skips the portion of the email where it describes the location of the crime. She explained that she is not a Seattle resident and doesn't know street names. She lives off-campus and takes a bus that gets her to and from the UW campus. In her view, crime locations communicated with street names add no value to her understanding where crimes have happened, so she entirely skips this info.
- Another student commented that she stopped reading these emails at all. She was reading them at the beginning when she joined UW student population; however, after a while she stopped doing it. She explained that she is a visual person, so reading unformatted text in emails does not hold her interest or attention. Thus she is now in the habit of deleting them straight from her inbox.
- One student said that she used to pay a lot more attention to the emails during her first few years of attending UW and now only skims through them to see if they happened near by. She also commented that she is always surprised to see that some of the biggest crimes in the area happen on major intersections of

the ave, where she wouldn't expect that kind of activity. When asked where she would expect more crime to happen, she identified the area past 50th on the ave.

- One student said that she doesn't like reading the alerts because it seems like the crime is never resolved. While the alerts provide information about the incident, they never follow up with a resolution, which is something she would be interested in learning.
- In response to his general feeling of safety and awareness about crime in the ares, one student said that his feeling of safety fluctuates depending on how many UW alerts he receives. The summer before going to the UW, he remembers receiving 5 UW alerts every week. This made him think that the U-dist was a very unsafe area.

#### **A-4: A Summary of Results**

- Most students used their e-mail's search function to find notifications.
- Most students did not read the notifications in detail.
- Students only remembered exceptional notifications.
- Most students did not change their habits after reading notifications.
- UWPD Notifications are not up-to-date enough to be relevant.
- No student looked up the location of the crime on a map.
- Students were unable to think of a definitive way to find related crimes, other than typing keywords into their e-mail's search function.
- Some students started deleting notification emails without even reading them after not favorable experience with email plain text format.
- While the overall consensus on Google Latitude was positive, none of the students who use Husky Night Walk or only walk with company would use it as a substitute.

#### **B. Walking on Campus at Night Results**

The student we accompanied at night generally felt safe as she walked through campus. She commented that:

- Before 10pm, she feels that it is safe to walk alone because there are still other students on campus.
- She was comfortable walking alone at night through the north end of campus, but would not do this if she were walking through Greek Row or the north-west parts of the U-District.
- She does not choose to talk to a friend on the phone (so that the friend may monitor her) while walking alone because she feels that it makes her phone to visible. And, a visible phone may encourage phone theft.

She did comment that there are definitely parts of the U-District that make her uncomfortable, but she generally felt that if she used good, common sense, it is safe to walk on campus after dark. She did not comment on what she would do if she needed to walk through a more dangerous neighborhood but did not have a friend to accompany her.

#### **C. Night Walk Ride Along Results**

The following are some bullet points about what we observed and what the Night Walk

officer informed us about.

- There are 4-5 night walk employees.
- Night Walk officers do not monitor crime, they do not keep track of high crime areas or rate any areas by danger.
- Night Walk receive 35-40 calls a night on average.
- Most Night Walk users are repeat user.
- Some users use Night Walk because they have felt unsafe when walking in the past. One girl had been followed home by a stranger and has now used the night walk when ever she is alone walking home late.
- Night walk officers give safety tips to their users.
- Night walk officers have a police dispatch monitor and can talk directly to police dispatch.
- There is a safety problem when a person is waiting for a night walk officer because the person may be standing alone on a street corner for some time.
- Night walk officers pick up people any where within 1 mile of campus and drive them directly to their requested destination on campus.
- Night walk is only for students and faculty.
- Night walk keeps a record of every student, their student number and where they got picked up and dropped off and the time.
- A student had gotten a ride from Night Ride which does not take students right to their door, and when the student was dropped off, while walking back to their room they were mugged. That is why night walk takes students to the door and makes sure they get in.
- Night is called by many people for many tasks
  - Some students call for jump starts for their cars
  - Parents call when they are talking to their child walking home and they abruptly loose connection
  - Some people call asking about information about the police.
- Night walk officers do not deal with crime they pass crime alerts on to the UWPD.
- Night walk is part of UWPD but the officers are not police men, they are security officers.
- Some people abuse the service to just get rides around campus. However most students use night walk because they do not feel it is save to walk alone.

## IV. Analysis of existing and new tasks

### A. Existing Tasks

The current system of receiving text and e-mail Notifications of Criminal Incidences by the UWPD allow UW students and faculty to perform a limited number of tasks:

- Through texts, students can receive **immediate notifications** of criminal activity regardless of one's access to a computer. This is also especially pertinent to student when actions is required, such as building evacuations or notifications of runaway criminals.
- Through e-mails, students can read information on recent crimes. Information includes **date, location, case number**, and a **detailed description** of the incident. Students are provided with a **hotline** to contact the police with additional information about the crime. These e-mails also include **tips for**

**preventing and reporting crime.** Students can archive these e-mails for later reference.

- Students can perform any task that their e-mail provider has, such as searching e-mails or filtering them by keyword.

In addition, Seattle residents are able to use sources like [spotcrime.com](http://spotcrime.com) and seattle.gov's [Online Crime Maps](http://seattle.gov/onlinecrime) to perform the following tasks:

- Users have access to an **interactive map** to observe locations of crime in the Seattle area. Crimes in this map can be **filtered** by category, date, and keyword.
- Information on these crimes includes **date**, **location**, and **category** of the incident. This information is organized into a table as well as included in the map.
- Users can see a **list of recent crimes** in the Seattle area.
- Users can see a **Google Street View** of a specific crime's location.
- Users can find information on **related crimes**.

**Note: Regardless of the students' ability to perform these tasks, the results of our contextual inquiry suggested that most students ignored these features. Because performing these tasks requires the students to use multiple applications, it is not surprising that students considered these tasks to be too difficult to casually complete using the current system.**

## **B. New Tasks**

Using a combination of the aforementioned systems (text, e-mail, online resources), members of the UW community can become relatively well-informed about crime in their neighborhood. However, the goal of the Husky Crime Guide is to simplify this process into a single application. Students may use the Husky Crime Guide mobile application to complete the following tasks:

- Task #1: Students can read the most recent **alerts** through this mobile application about incidences that require immediate action.
- Task #2: Students can read information on all crimes reported by the UWPD using the interactive map. Information includes **date**, **location**, **case number**, **category**, **related crimes** and a **detailed description** of the incident. Students can **filter** which crimes are displayed on the map by category, date, and keyword. They can also choose to filter for crimes that are within a certain distance of the user's current location. Using the interactive map and filters, students gain a geographic perspective on only crimes that are relevant to them.
- Task #3: Students can choose to be monitored by the Husky Crime Guide Monitors. In case of an emergency, they have access to a **one-button panic button** that immediately contacts the police.
  - Also, when in monitoring mode, the application can be set to auto dial 911 in response to preselected distress situations such as a loud scream. This will allow police to be notified in situations when a student is attacked unexpectedly and the student had no time or chance to push the panic button.
  - In case of a non-emergency, this application will also provide a phone number for contacting the hotline.
  - In the case of theft of mobile device, this application would publish it's

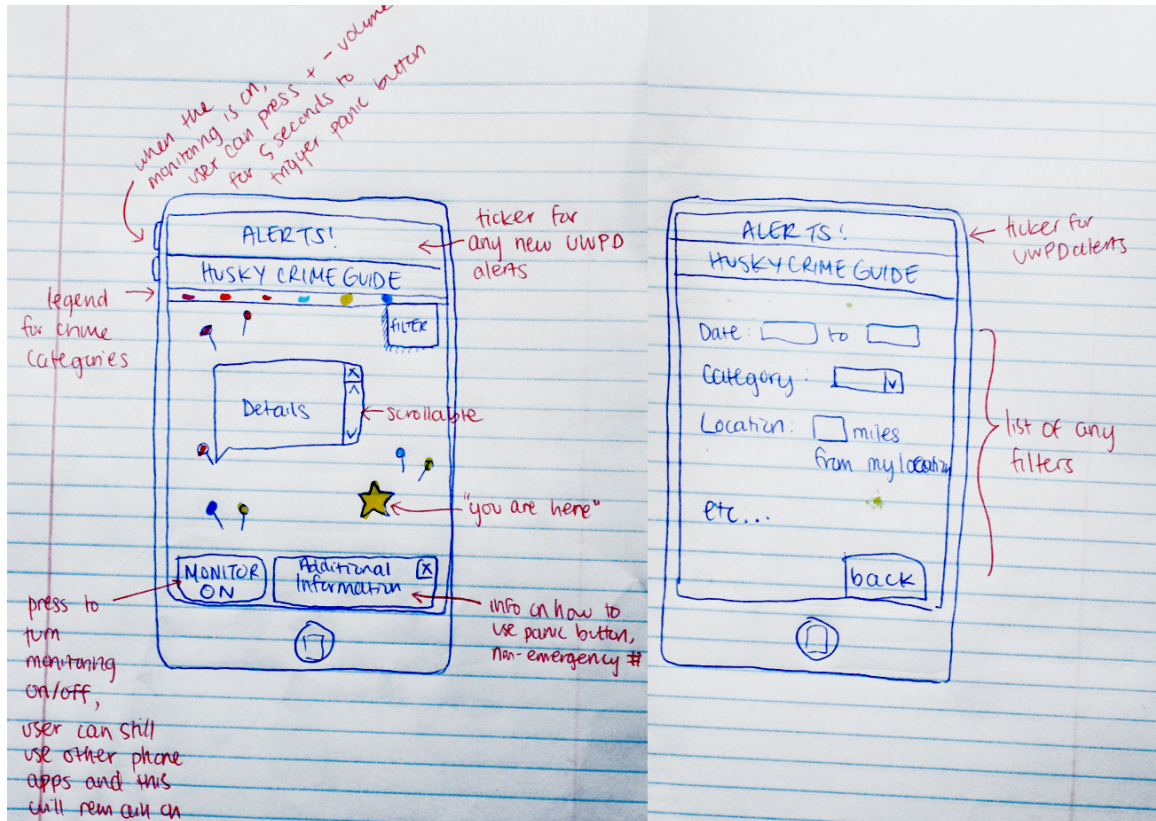


locations to law officials to assist in an arrest. Also this application could begin recording any incident so that there would be evidence to be used by prosecution.

In consolidating these tasks into a single mobile application, the Husky Crime Guide will provide information on **past crimes**, alerts on **currently occurring crimes**, and a convenient method for contacting the police to prevent **future crimes**. Because this is an application for your phone, all of these tasks are convenient and portable.

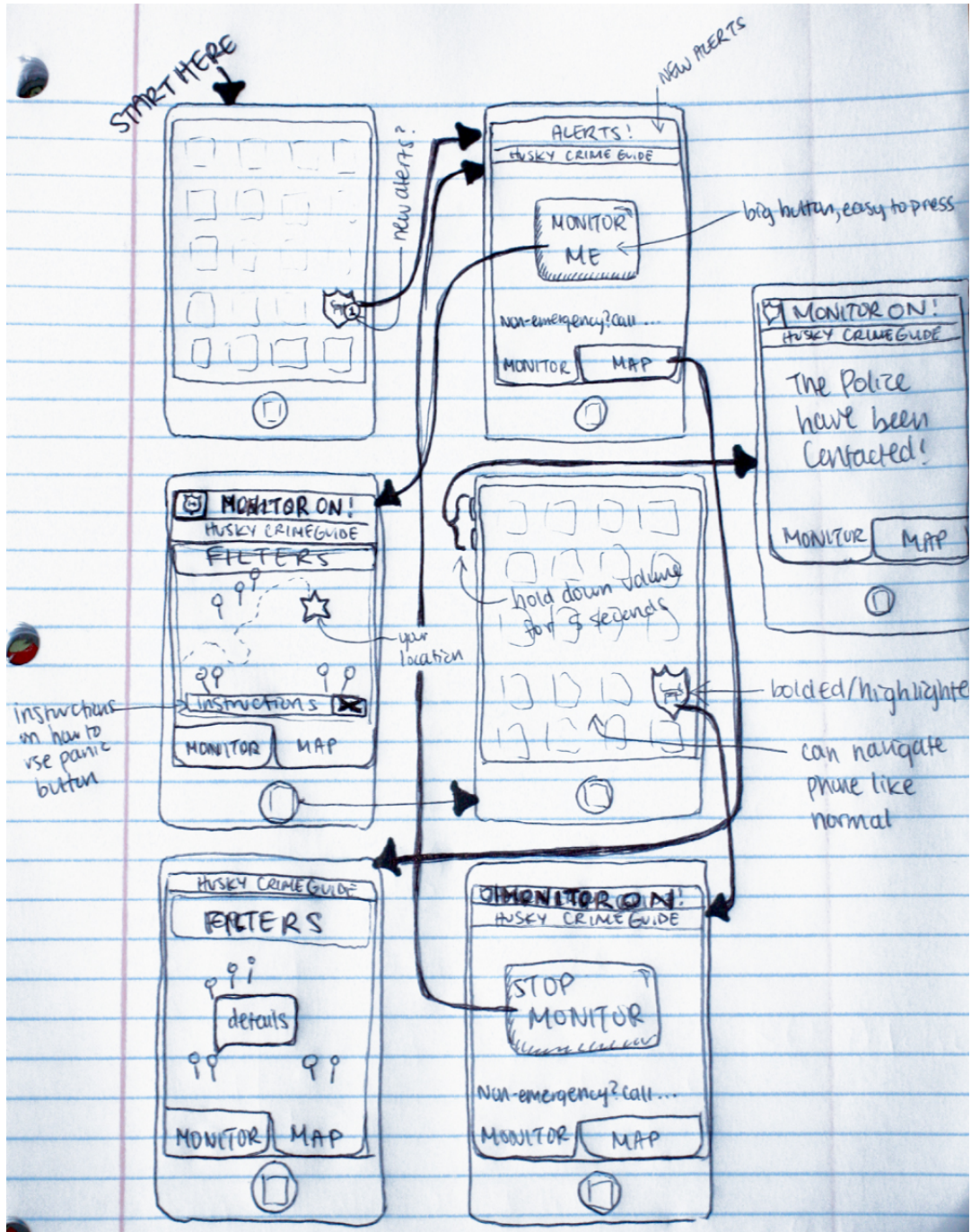
## V. Design Sketches

### A. Two Screens: Main and Filter Views



### B. Tabbed View: Monitor and Map

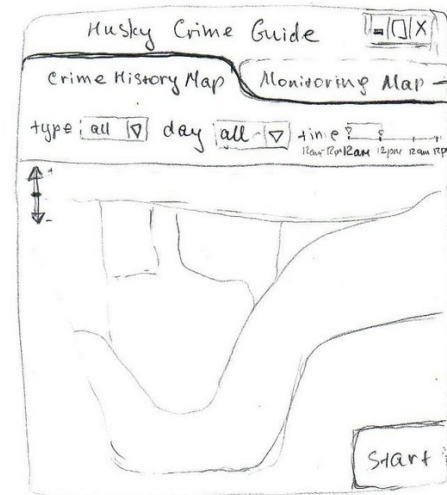




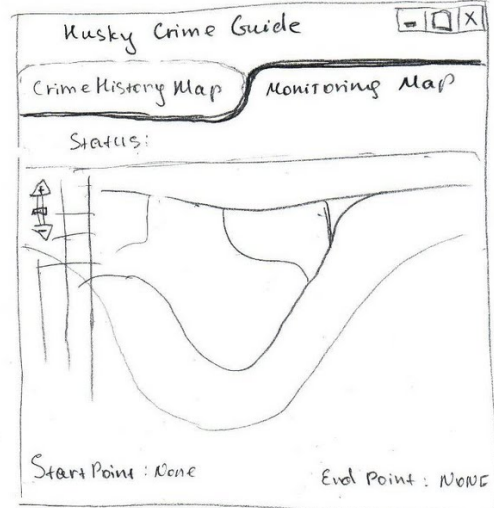
C. Another Design Idea

# Design Idea

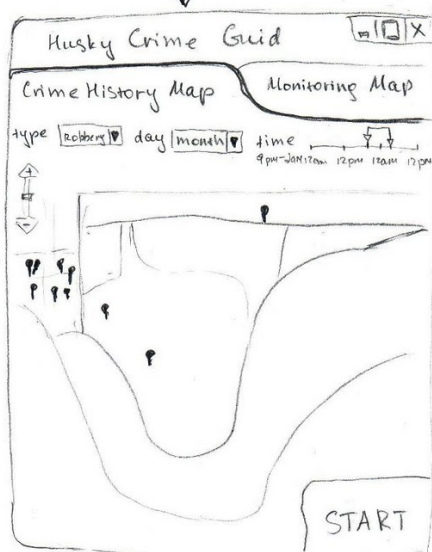
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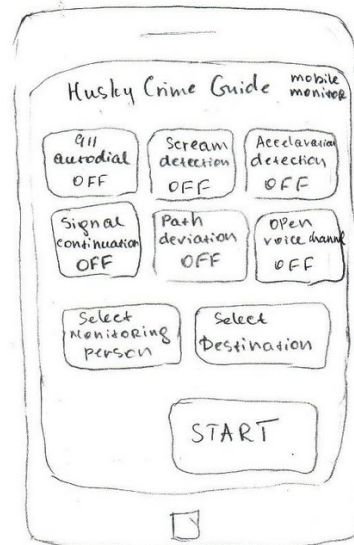
default view



default view, no monitoring is activated



displays: robberies for the last month that occurred from 9pm to 12am time period

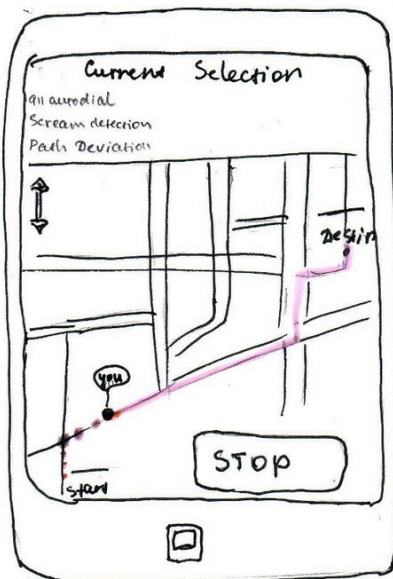


default view of mobile app

## Design Idea

2 of 2

monitoring in progress



D. Last  
Idea



